

## NEUROLOGICAL SOFT SIGNS (NSS) IN SCHIZOPHRENIA

Professor Johannes Schröder

University of Heidelberg  
Section of Geriatric Psychiatry, Head

Neurological soft signs (NSS) are minor neurological signs indicating non-specific cerebral dysfunction. In schizophrenia, their presence has been documented extensively. Clinical trials found NSS to be associated with the core features of the disease, i.e. psychopathological symptoms, neuropsychological deficits, and genetic liability; their cerebral correlates – as identified so far in neuroimaging studies – encompass the sensorimotor cortices, the basal ganglia, the thalamus and the cerebellum.

Interestingly, NSS vary in the clinical course with psychopathological symptoms as demonstrated in longitudinal studies. Persistent NSS therefore herald an unfavourable, chronic course. Interestingly, NSS scores obtained in patients with a remitting course of the disorder are well in the range typically observed in otherwise healthy subjects with an increased liability towards schizophrenia.

It is suggested to use NSS for differentiating both genetic and disease – trait vs. state - related factors in schizophrenia.